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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,157	01/24/2005	Elmar Kibler	3165-116	9202
6449 7590 12/19/2008 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER BROWN, COURTNEY A				
ART UNIT		PAPER NUMBER		
1616				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary

Application No.

10/522,157

Applicant(s)

KIBLER ET AL.

Examiner

COURTNEY BROWN

Art Unit

1616

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8, 9, 23 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9, 23, and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Receipt of Amendments/Remarks filed on November 20, 2008 is acknowledged. Claims 1, 8,9,23, and 26-32 have been amended. Claim 33 has been added. Claims 2-7, 10-22, and 24-25 stand cancelled. Claims 1, 8,9,23, and 26-32 are being examined for patentability.

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

The obviousness-type double patenting rejection of claims 1, 8,9,23, and 26-32 over copending application 10/522,097 is **maintained**.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Omum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438,

164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 8,9,23, and 26-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,10,11,13,17-35 of Application No. 10522097. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by the co-pending application.

The copending application is directed to the same synergistic herbicidal compositions with the same main component, component A, a 3-heterocyclyl-substituted benzoyl derivative and component C which is at least one herbicidal compound selected from the group consisting of at least one of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides in a synergistically effective amount. Applicant is using open terminology (the term, comprising) which means that anything can be added to the composition. It would be obvious to add another component B, which is also a herbicide. Without any

unexpected results on record imparting the addition of component B, the inventions are not patentably distinct. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on November 20, 2008 have been fully considered but are not persuasive. Applicant argues that the subject matter of the instant application is not effective but synergistic herbicidal mixtures and that it is known in the art that a synergistic effect cannot be predicted from the herbicidal activity of the individual components. However, the Examiner disagrees with this argument because co-pending application 10/522,097 claims a synergistic herbicidal mixture comprising the same components of the instant application: component A, **4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)-1-methyl-5-hydroxy-1H-pyrazole** (claim 1, component A of co-pending application 10/522,097) and component B, selected from **imazapyr, imazaquin, imazamethabenz-methyl, imazamox, imazapic, and imazethapyr** (claim 1, component C of co-pending application 10/522,097). The difference between the invention of the instant application and that of co-pending application 10/522,097 is that the instant invention claims the use of a different component C, atriazine as opposed to flumetsulam or clopyralid. It would have been obvious to one of ordinary skill in the art to replace flumetsulam or clopyralid, herbicidal component B of co-pending application 10/522,097, with another herbicidal component

such as atriazine. Thus, "It would be prima facie obvious to modify a synergistic composition which is taught by copending application 10/522,097 to be useful for the same purpose in order to form a resultant composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980). Further, the specification of co-pending application 10/522,097 teaches the use of atriazine (page 7, line 27) in a synergistic combination with the instant composition's component A. The instant application teaches the use of flumetsulam or clopyralid in a synergistic combination with the instant composition's component A (see page 4, line32). Therefore, it would expected that the substitution of flumetsulam or clopyralid as used in the instant application for atriazine as claimed in co-pending application 10/522,097, would result in a synergistic composition.

The rejection of claims 1, 8,9,23, and 26-32 under 35 U.S.C. 103 (a) as being unpatentable over Sievernich et al. (CA 2,334,955) is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 8,9,23, and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sievernich et al. (CA 2,334,955).

Applicant's Invention

Applicant claims a herbicidal mixture comprising four active ingredients including component A, **4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl]-1-methyl-5-hydroxy-1H-pyrazole**; component B, which is at least two herbicides selected from **imazapyr**, **imazaquin**, **imazamethabenz-methyl**, **imazamox**, **imazapic**, and **imazethapyr** (wherein component A and component B are present in a weight ration of 1:0.002 to 1:800); and component C, **atrazine**) in a synergistically effective amount. Applicant also claims the herbicidal mixture as defined above wherein there is at least one inert liquid and/or solid carrier, and if desired, at least one surfactant. Additionally, applicant claims a process for preparation of the herbicidal composition and a method of controlling undesired vegetation comprising applying simultaneously or separately to the leaves of said vegetation, the environment of said vegetation and/or seed of said vegetation.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Sievernich et al. teach a synergistic herbicidal mixture comprising at least one 3-heteroxyxlyl-substituted benzoyl derivative, or its environmentally compatible salts. Sievernich et al. teach **4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl]-1-methyl-5-hydroxy-1H-pyrazole** as a most particularly preferred 3-

heteroxyxlyl-substituted benzoyl derivative (page 20, lines 19-21, claims 1,16-26, and 31 ,component A of instant application).

Sievernich et al. teach that the said synergistic herbicidal mixture also comprises a synergistically effective amount of at least one herbicidal compound from the group consisting of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors, photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides (page 1, lines 4-40 , page 1a, lines 1-6, page 2, lines 1-6 and claim 1 of reference, claims 1,15-17 and 20 , component C1-C16 of instant application) Specifically, Sievernich et al. teach the use of **imazapyr**, **imazaquin**, **imazamethabenz**, **imazethapyr** (page 28, line 18, claims 1,8,9,16-26 and 31, component B of instant application), and **atrazine** (page 84, lines 11,12, and 29, claims 21-26 component C of instant application).

Sivernich et al. teach, in a further particular embodiment, teach a synergistic herbicidal mixture comprising as component A, a 3-heteroxyxlyl-substituted benzoyl derivative and as component B, **two herbicidal compounds** selected from the group consisting of acetyl-CoA carboxylase inhibitors, acetolactate synthase inhibitors, amides, auxin herbicides, auxin transport inhibitors, carotenoid biosynthesis inhibitors, enolpyruvylshikimate 3-phosphate synthase inhibitors, glutamine synthase inhibitors, lipid biosynthesis inhibitors, mitosis inhibitors, protoporphyrinogen IX oxidase inhibitors,

photosynthesis inhibitors, synergists, growth substances, cell wall biosynthesis inhibitors or a variety of other herbicides (page 34, lines 42-46).

Sievernich et al. teach that as a rule, the mixture comprise components A and B in such weight ratios that the synergistic effect takes place(ratios of components A and C of the instant application) in the mixture preferably range from 1:0.002 to 1:800 (page 38, lines 20-24, claim 28 of instant application). Sievernich et al. teach, in particular, that the mixture comprise components A and B in a weight ratio (ratios of components A and B of the instant application) in the mixture range from 1:0.004 to 1:106 (page 39, lines 13-40, claim 27 of instant application).

Sievernich et al. further teach that the herbicidal compositions have an herbicidally active amount of a synergistic herbicidal mixture and at least one liquid and/or solid carrier and if desired, at least one surfactant (page 2, lines 8-11, claims 29 and 30, solid and/or liquid carrier and surfactant, instant invention).

Sievernich et al. also teach that their invention relates to processes for preparation of said synergistic herbicidal mixtures and to a method of controlling undesirable vegetation (page 2, lines 13-15, claims 30 and 31, process of preparation and method of controlling undesired vegetation of instant application). Sievernich et al. teach that the active ingredients of components A and B can be formulated jointly, but also separately, and/or applied to the plants, their environment and/or seeds jointly or separately (page 37, lines 31-33, claim 34, applied to vegetation and/or seeds of instant application). Sievernich et al. teach that it is preferable to apply the active ingredients

simultaneously, but it is possible to apply them separately (page 37, lines 33-35, claim 34, applied simultaneously or in separately of the instant application). Sievernich et al. further teach the mixtures can be applied pre-or post- emergence and that in the case of post-emergence treatment of the plants (page 38, lines 1-2), the herbicidal compositions according to the invention are preferably applied by foliar application (page 38, lines 11-13, claim 32 ,application to leaves, of instant application).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Sievernich et al. is that the instant invention requires specific synergistic herbicidal combination comprising at least 4 components or active ingredients as opposed to 3 or 4 components.

***Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)***

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Sievernich et al. to arrive at a synergistic herbicidal mixture comprising at least four components. Although Sievernich et al. do not teach a synergistic herbicidal mixture with a fourth active ingredient, it would be obvious to one

of ordinary skill in the art to devise a synergistic herbicidal mixture comprising 4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)]-1-methyl-5-hydroxy-1H-pyrazole, and at least two herbicidal compounds selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr as taught by Sievernich et al. and to add an additional component C. One would be motivated to make this combination with the expected benefit of having a taught synergistic herbicidal mixture with enhanced effectiveness. A composition that consists of the same components will possess the same properties and therefore lead to identical, desired results.

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on November 20, 2008 have been fully considered but they are not persuasive. Applicant argues that quaternary synergistic herbicidal mixtures comprising 4-[2-methyl-3-(4,5-dihydroisoxazol-3-yl-4-methylsulfonyl-benzoyl)]-1-methyl-5-hydroxy-1H-pyrazole, and at least two herbicidal compounds selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr, and a fourth herbicidal compound are not disclosed or suggested in Sievernich et al. The Examiner disagrees and does not find this argument persuasive because Sievernich et al. do teach, in a further particular embodiment, a synergistic herbicidal mixture comprising as component A, a 3-heteroxyxlyl-substituted benzoyl derivative and as component B, **two herbicidal compounds** (page 34, lines 42-46). It would be obvious to one of ordinary skill in the art

to add a fourth herbicidal component with the expectation of having a taught synergistic herbicidal mixture with enhanced effectiveness.

Additionally, Applicant argues that Sievernich et al. provides no indication as to how one might select the inventive components B (selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr) from a wide range of potential mixing partners and to choose an additional component C. The Examiner disagrees and does not find this argument persuasive because Sievernich et al. do specifically claim a synergistic mixture with components clopyralid and flumetsulam selected from a group of about 41 different herbicidal compounds (see page 88, claim 13). Thus, this specific claimed group is very narrow in range and it would therefore be easy and common for one of ordinary skill in the art to arrive at a synergistic mixture comprising two components selected from imazapyr, imazaquin, imazamethabenz, and imazethapyr.

Additionally, Applicant points to the fact that the claims of the instant application are drawn to a synergistic herbicidal mixture which is demonstrated in table 7 of the instant specification. The Examiner agrees with this argument. However, Sievernich et al. teach the use of **imazapyr, imazaquin, imazamethabenz, imazethapyr** (page 28, line 18, claims 1,8,9,16-26 and 31, component B of instant application), and **atrazine** (page 84, lines 11,12, and 29, claims 21-26 component C of instant application) in a synergistic combination with instant component. Further, in a further particular embodiment, Sievernich et al. teach a synergistic herbicidal mixture comprising instant component A and component B, **two herbicidal compounds** (see page 34, lines 42-end). Thus, the prior art teaches synergy using 3 herbicidal compounds and

one of ordinary skill in the art would expect to have a synergistic effect with the addition of a fourth herbicidal compound.

Conclusion

None of the claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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